**SYNOPSIS**

# AVIAN DIVERSITY AND SEASONAL ABUNDANCE OF SOME WETLANDS OF JATH TAHASIL,

# DIST. SANGLI, (M.S.) INDIA

A SYNOPSIS SUBMITTED TO THE

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BY

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# *SYNOPSIS*

# AVIAN DIVERSITY AND SEASONAL ABUNDANCE OF SOME WETLANDS OF JATH TAHASIL,DIST.SANGLI, (M.S.) INDIA

## 1. ABSTRACT OF PROPOSED PLAN:

Jathtahasil is one of the largesttahasil of Sangli district of Maharashtra state. This tahsil contain twenty three major and minor water bodies. Jath is prone arid area but now a days Mhaisal water supply of Krishna river water is provided to the some of water bodies due to that there is enough water for agriculture and fishery. These water bodies show huge number of avian diversity. In an aquatic ecosystem, avian fauna takes a special place and also occupy very important position in food chain. Many of aquatic birds from these wetlands play control of agricultural pests.

The avian fauna of wetland parts of Jathtahasil is not under the consideration and also much attention is not given. Many of population of aquatic birds are affected from pollution due to human interference. Because of this reason there is vast decline of bird's habitat. In the present study a check list of aquatic avifauna will be prepared and awareness among the people will be created. This is the strategy which will be introduced from the present study for the conservation of wetlands. The variations in availability of food, nesting and roosting behaviour will also be studied in the present investigation.

## 2. INTRODUCTION:

More than 9600 species of birds occur all over the world, out of these about 2100 species and their subspecies occur in Indian subcontinent and more than 1200 species are recorded in various habitats of Indian subcontinent. Several avifaunal species have silently vanished because destruction of habitat, drought, hunting, urbanization, predation. Approximately 12% Asian birds are globally threatened. Wetlandbirds comprise about 10% of the globally threatened. So base line data of avifauna and their conservation is essential.

Jathtahasil is very potential to the varieties of birds as it is having multidisciplinary geographical status. Throughout all seasons many migratory birds make their familiar relations with the local birds. To prepare the checklist of avifauna is the main goal of the present study.

Several avifauna species have silently vanished because destruction of habitat, drought; hunting; urbanisation; predation; wetland birds comprises about 10% of the globally threatened so base line data of wetland avifauna and their conservation is essential.

Jathtahasilis one of the largest tahasil of Sangli district in Maharashtra state which is provided contains twenty three water bodies and they shows potential to the varieties of birds as it is having multidisciplinary geographical status.Throughout all season many migratory birds make their familiar relations with the local birds in these water bodies. To prepare the checklist of avifauna of wetlands is the main goal and to make strategies to conserve the wetlands.

## 3. REVIEW OF LITERATURE AND DEVELOPMENT IN THE STUDY:

The recent studies assess freshwater biodiversity as the most threatened of all types of diversity and wetlands are found to be richest site by holding major share of the existing avifauna ( Anon,2000) The birds population fluctuated among sites in different seasons due to local environmentally dependant factors, habitat differences, local & regional habitat changes and climatic conditions (Ericia*et al*.,2005). The avifauna is important for the ecosystem as they play various roles as scavenger, pollinators and predators of insect pest (Padmavat,*et al*., 2010).Wetlands provided food for birds in the form of plants, vertebrates, and invertebrates (Jaikrishna, 2008;Lammed, 2011).

In Bamanwadalake of RajuraDist- Chandrapur (M.S.)recorded 58 total numbers of species belonging 9 orders and 29 families, during October 2010 to September 2011. In Muchi lake near Pandhakawada, Dist.Yavatmalfound 34 birdspecies. (Santosh Pawar& Amar Wanjari,2013). The avifauna in Walekhindi tank from Jathtahasil of Sangli district is studiedby, Randive*et al.*during 2012 to June 2014 and recorded 55 species of different birds belonging to 30 families of 14orders.Avifauna of Girazani Irrigation Tank of MalshirasTahasil of Solapur District, Maharashtra andSurvey and Record of Waders in the Catchment Area of Ujani Dam, Near Bhigwan, Pune District, Maharashtra had been studied by Kumbhar A. C and *et al*(2014). Total 106bird species belonging 41 families have been recorded at Ekrukh wetland during the period of 12 months from May 2013 to April, 2014 by P.V. Darekar*et. al*

## 4. OBJECTIVES OF RESEARCH:

1) Survey of some important wetlands bird ecosystem in Jathtahasil in Sangli district.
2) To study species community, structure ,species abundance; composition and functional diversity of wetland birds.
3) To investigate correlation between environmental variables& community structure of wetland avian diversity.
4) To study migratory patterns of wetlands birds in study area.
5) To study explosive impact of anthropogenic activities and their disturbance on wetland avian diversity.
6) To study the birds nesting near the water bodies.
7) To study the seasonal abundance of different species of wetland birds.
8) To study the effect of seasonal factors on wetland birds diversity.

## 5. METHODOLOGY:

1.Survey camps will be conducted throughout the study period in the different parts of study area.

2. Study spots will be decided in the various regions of water bodies, roosting &nesting place and the heronries.

3. Record of accidently killed or harmed or poached by hunters will be assessed for the preparation of data for the further study in the sense of better survival of bird species.

4. Checklist of Jathtahasil wetland birds will be prepared.

**The counting and record of bird species will be carried in the following manner:**

For wetland birds direct counting method will be used. In this method suitable vantage point will be selected and all visible birds are counted.

A point count consist of standing in a specific location and counting birds, one count the number of individuals birds of each species within circle of certain radii.

When the birds are more in number direct counting of head .In this method photographs will also used. In this method around the wetland the line will be drawn to count the birds. The line should be 50 to 100 meter and the birds on both sides of about 500 meter area will be counted.

Data will be recorded on the basis of their visit to wetland as:

**R**- Widespread resident

**W**-Widespread winter visitor

**RM**- Resident migrant

**S**- Summer

**M**-Monsoon and

**W**- Winter

## 6. IMPORTANCE OF STUDY:

1) The study will help to make aware of the procedures for study the wetland birds.

2) The present status of wetland birds will be known.

3) The study will also provide the data of wetland avian diversity in that study site.

4) The richness of species of wet land avian will be known at that study site.

5) Study will help to known impact of environmental variable on wetland avian diversity.

6) The study will also help for conservation and restoration strategies of wetland birds.

7) The study will help to know the destruction reason's of wetland birds in particular study site.

8) The study will help to know the seasonal abundance of wetland birds.

9) The study will help to know the variation in food availability in different season which affects the avifauna.

## 7. PROPOSED WORK PLAN:

| ***Duration*** | ***Research work to be carry*** |
|---|---|
| 2016- 2017 | 1. Collection of references and data literature of birds.<br>2. Survey of some important aquatic birds.<br>3. Study of species community structure, Species abundance, composition and functional diversity of birds.<br>4. Investigation of correlation between environmental variables and community structure of avian diversity.<br>5. Study of migratory pattern of birds in study area. Anthropogenic activities and their disturbance on avian diversity.<br>6. Survey of birds. |
| 2017 -2018 | 1. Survey of birds<br>2. Statistical analysis of collected data. |
| 2018 -2019 | 1. Statistical analysis of collected data and compilation of data.<br>2. Completion of data collection and Completion of statistical analysis of collected data<br>2. Writing and submission of thesis. |

## 8. The whole study of present investigation will be presented in the following topics:

1) Introduction with review of literature.
2) Material and methods.
3) Result and discussion.
4) Summary/ Conclusion.
5) References**.**

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**Research Student** **Research Guide**

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